



Washington  
State Department of  
Agriculture

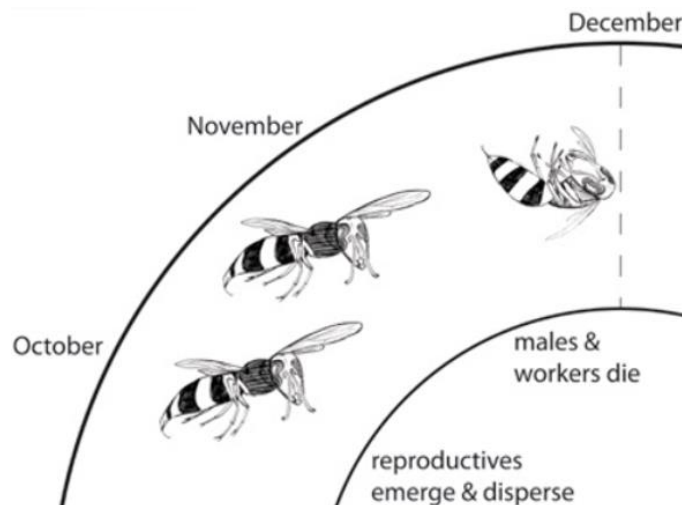
## PLANT PROTECTION DIVISION PEST PROGRAM

### ASIAN GIANT HORNET STAKEHOLDER UPDATE #17 – DECEMBER 9, 2020

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### ASIAN GIANT HORNET LIFE CYCLE UPDATE

In their native range, all Asian giant hornet colonies follow a specific life cycle. The colony reaches maturity in the late summer, after which the initial queen will then start producing new queens and males. As winter approaches the new virgin queens and males emerge from the nest. Once outside the nest, new queens and males will mate. However, some queens will go unmated. The queens will disperse to overwinter, finding a sheltered area or place in the soil. The males and the workers will die in the winter.



### WSDA BOTTLE TRAP REMOVAL FOR THE 2020 SEASON

WSDA has removed most of the Asian giant hornet traps for the 2020 season. Some bottle traps and live traps will remain until December 23. The Asian giant hornet team is still working hard to analyze data, make any changes, and prepare for the next trapping season.

Citizen scientist trapping has ended; however, public reporting of Asian giant hornets is still being encouraged. It might be harder to see a live hornet this time of year, but it is still important to report any hornets, even if you find a dead one.

## REPORT ASIAN GIANT HORNETS

In December 2019 the first Asian giant hornet was confirmed in Blaine, WA. Asian giant hornet poses a serious threat to honey bee populations, human health, and sustainable agriculture in Washington. Public reporting of this pest is crucial to detect any populations.

**Reporting Asian giant hornet sightings**

**GOOD**  
Report sighting to WSDA with details of what you saw and where.

**BETTER**  
Get a photo of the suspected hornet to submit with your report.

**BEST**  
Collect the specimen if it is dead. Keep it in case WSDA needs to test it.

**REPORT EVERY HORNET EVERY TIME**

Report Asian giant hornet sightings at [agr.wa.gov/hornets](http://agr.wa.gov/hornets)

Washington State Department of Agriculture

If you see an Asian giant hornet or have seen evidence of a hive attack, please report it! It is important to report any sighting of a hornet whether it be dead or alive. There are several ways to report suspected sightings in Washington State:

- Report using the [Hornet Watch Report Form](#)
- Email [hornets@agr.wa.gov](mailto:hornets@agr.wa.gov)
- Call 1-800-443-6684

If the suspected sighting is NOT in Washington State, please submit the report to your state or province's department of agriculture.

## NEW DETECTIONS

There have been no new confirmed sightings of Asian giant hornets reported to WSDA.

## CITIZEN SCIENTIST TRAPPING SURVEY RESULTS

Last month WSDA contacted citizen scientists to gather feedback on their participation in trapping for Asian giant hornets this year. The [complete survey results](#) are in with nearly 400 people completing the survey! The responses will help improve the citizen scientist trapping program next year. You can

download the full results, but we wanted to address one common concern expressed by participants: bycatch.

“Bycatch” is what the non-target insects in the traps are called (anything that is not an Asian giant hornet in this case). Our primary goal for analyzing bycatch is to ensure the traps aren’t significantly negatively impacting bees, which happily we confirmed they are not. All collections from October have been analyzed and bees (both wild and managed) comprised only 1.5% of insects trapped.

There was also an exciting find in the bycatch. The orange juice and rice cooking wine bait seems to attract spotted wing drosophila (SWD). This is an invasive fruit pest that has a large negative impact on berry production in western Washington. In addition to catching millions of this exotic pest, the traps also captured the first United States specimens of parasitoid wasps that prey on SWD. The parasitoid larvae will live off SWD and eventually kill it. Without these traps this parasitoid wasp might have gone unnoticed. This information may help the development of biological control programs to potentially help manage SWD.

Thousands of collections are still being processed. WSDA is working through this large amount of material to identify *any* bee, wasp, or hornet collected. A sample of moths and other parasitoid insects are also being identified. Some of the trap collections are even being saved in case there is a future opportunity to further analyze the insects.

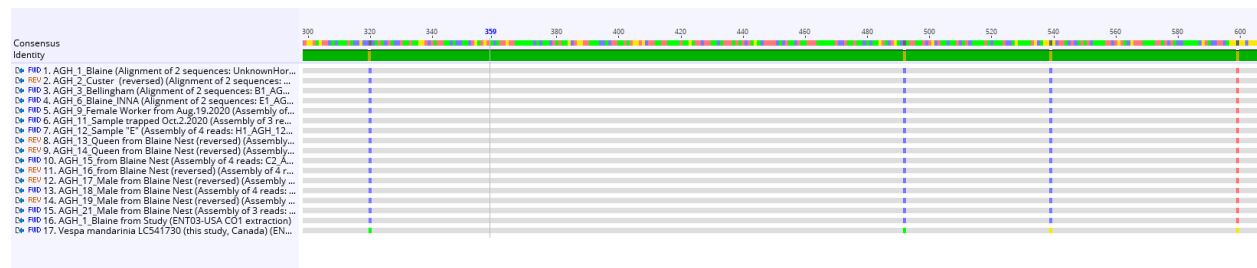
In short, while not having bycatch would be ideal, we are making the most of it and learning important information, so the loss of those insects is also providing a benefit. Stay tuned for the complete data from WSDA and citizen scientist trapping programs - entomologists expect it to be available early next year.

## GENE SEQUENCING

Scientists can use genes (sometimes referred to as barcodes) to identify if individuals belong to the same species. Each species has inherited genes that are comprised of specific sequences. The CO1 (cytochrome oxidase 1) gene sequences are maternally inherited from the founding queen, in the case of Asian giant hornets.

The hornets found in Washington, to date, were processed and showed identical CO1 barcodes. This suggests the hornets come from the same initial introduction.

One Asian giant hornet from the nest eradication in Nanaimo, British Columbia was also analyzed, and showed a slight difference in the CO1 barcode sequence compared with Washington hornets. This suggests the Nanaimo introduction is not the same as the Washington population. Hornets from mainland British Columbia have not been included in this analysis, so it is unclear if those population stem from the same introduction.



## UPDATE FROM CANADA

British Columbia has no new reports. They continue to encourage citizens to report Asian giant hornet sightings.

## STAY CONNECTED

The WSDA continues to work with the public to provide information on Asian giant hornets. The WSDA continues to provide informational webinars to beekeeping associations, gardening clubs, libraries and museums, sovereign nations, and many other stakeholders. Contact [hornets@agr.wa.gov](mailto:hornets@agr.wa.gov), if your organization is interested in a presentation to learn more about Asian giant hornets.

- [View past news releases, blogs, and Pest Program updates](#) about Asian giant hornet.
- Join the [Asian giant hornet Facebook group](#).
- Join the [Pest Program email listserv](#).
- Follow WSDA on [Facebook](#), [Instagram](#), [YouTube](#), and [Twitter](#).